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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,214	01/12/2004	Rajiv Doshi	2502230-991101	1165

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EXAMINER

MCKANE, ELIZABETH L

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/756,214	Applicant(s) DOSHI, RAJIV	
	Examiner Leigh McKane	Art Unit 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 December 2005 has been entered.

Claim Objections

2. Claims 32-38 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 32-38 are dependent upon cancelled claims 1 and 2. They have been treated as if they depend upon claims 31 or 32.

Claim Rejections - 35 USC § 103

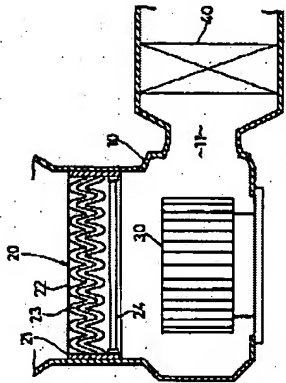
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 31 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tagawa et al. (JP 2002-17837) in view of Kobori et al. (JP 11-198640).

Tagawa et al. teaches an HVAC system for a motor vehicle including a passenger



compartment. The HVAC system of Tagawa et al. includes an air inlet (unlabeled inlet above filter case 20), a conduit 10 that is fluid coupled to the air inlet, a blower 30 in the conduit, an evaporator 40 in the conduit and downstream of the blower, an air outlet (unlabeled outlet downstream of the evaporator), an odor removing air filter 22,23 disposed in a pre-blower portion of the conduit between the air inlet and the blower, and a UV source 24

disposed in the pre-blower portion of the conduit between the air inlet and the blower. See machine translation, paragraphs [0005]-[0008].

Tagawa et al. is silent with respect to coupling the UV light 24 with a controller that monitors a state of a vehicle component that affects a vehicle power supply and selectively activates and deactivates the UV light accordingly. Kobori et al. however, discloses such in a UV apparatus for use within a vehicle HVAC system. Kobori et al. teaches specifically, monitoring the ignition state of the engine to avoid draining the vehicle battery when the car is not running. The UV light is deactivated when the ignition is turned off and activating the light when the ignition is turned on. See machine translation, paragraphs [0015]-[0017]; [0036], [0041]-[0044].

In order to prevent battery drain in the vehicle of Tagawa et al., it would have been obvious to apply the control and monitoring means of Kobori et al. to the UV light 24.

5. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tagawa et al. and Kobori et al. as applied to claim 31 above, and further in view of Kawashima et al. (US 4,955,208).

Tagawa et al. is silent with respect to the wavelength emitted by the UV light 24. Kawashima et al. evidences an air purifier wherein a UV lamp 106 emitting at 254 nm (UV-C) activates a titanium dioxide photocatalytic filter 105. See col.3, lines 18-37 and Figure 10. It would have been obvious to use an ultraviolet light emitting at 254 nm in the apparatus of Tagawa et al. since a titanium dioxide photocatalyst is supported by filter element 23 and irradiated by UV light.

6. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tagawa et al. and Kobori et al. as applied to claim 31 above, and further of Broomfield (U.S. Patent No. 4,857,277).

Tagawa et al. fails to teach UV absorbent interior surfaces for the air ducts. However, Broomfield teaches an ozone generator that uses UV radiation to generate the ozone. Broomfield discloses that UV radiation is dangerous to humans and animals and can cause skin or eye damage (col.1, lines 27-31). As a result, Broomfield employs ducts painted or coated with a black material, absorbent of UV radiation. See col.2, lines 15-17 and claim 4. In order to prevent injury to vehicle occupants, it would have been obvious to coat the internal duct surfaces with a UV absorbent material, in the manner of Broomfield.

7. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tagawa et al. and Kobori et al. as applied to claim 31 above, and further of Hollander (U.S. 5,334,347).

Tagawa et al. is silent with respect to UV reflective interior surfaces for the air ducts.

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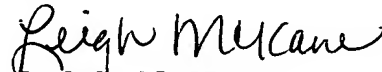
Hollander discloses an HVAC system for a vehicle wherein the interior of the air duct "is reflective of the ultraviolet energy (254 nm)" in order to direct the UV radiation throughout the duct and to intensify sterilization effects." See col.7, lines 34-39. For this reason, it would have been obvious to fabricate the interior of duct 10 of Tagawa et al. of a reflective material.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh McKane whose telephone number is 571-272-1275. The examiner can normally be reached on Monday-Thursday (5:30 am-2:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Leigh McKane
Primary Examiner
Art Unit 1744

elm
14 March 2006